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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,125	10/08/2003	Takeyuki Minamimoto	008312-0306280	4666

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EXAMINER	
SAUNDERS JR, JOSEPH	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/680,125	**Applicant(s)** MINAMIMOTO, TAKEYUKI
	Examiner Joseph Saunders	**Art Unit** 2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _09 January 2008_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _21 and 22_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _21 and 22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _10 July 2007_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 9, 2008 has been entered. Claims 21 and 22 are currently pending and considered below.

Claim Objections

2. Claims 21 and 22 are objected to because of the following informalities: The term “CD” found in the claims is well known to mean compact disc as presented in the specification however “CD” should also be introduced in the claims in a manner similar to how “table of contents (TOC)” is presented. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 21 and 22 state "CD subjected to measures for ripping” however one can not determine from the claim how the “subjected measures” affect “ripping” and

therefore the claims are unclear. It is suggest that the limitation would be better presented as it appears in the specification as original filed on page 8 lines 23 – 25 where it describes the discs are subjected to measures to counter ripping.

5. Claims 21 and 22 also present the term “audio playback device” and while not indefinite in its own right, the term "audio playback device" does not allow for a distinction to be made as required by the claim to what an “audio playback device” does not entail. For example, in the specification as originally filed Applicant intends for a distinction to be made between a personal computer and an audio playback device; however as claimed a computer is capable of playing audio and therefore can be considered an “audio playback device”. Therefore, it is suggested that Applicant make a clear distinction in the claim and possibly use language from page 9 lines 5 – 14 of the specification as originally filed, for example, which makes a distinction when describing “the host PC1 can perform ripping” and “audio playback device 7 only for playback”.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki et al. (US 6,058,476), hereinafter Matsuzaki, in view of Salmonsen et al.

(US 7,178,169), hereinafter Salmonsen, and Murakami et al. (US 6,973,015), hereinafter Murakami.

Claims 21 and 22: Matsuzaki discloses an optical disk device (optical disc drive apparatus 110) and method of controlling an optical disk device, it is noted that Matsuzaki is concerned with the protecting "data transmitted over communication lines from being illegally copied or altered by intercepting the line of communication," as described in the Description of Prior Art.

Matsuzaki teaches,

> "For example, the data of copyrighted material such as a movie is often digitalized, compressed and digitally recorded onto an optical disc. This electronic data is retrieved by an optical disc playback device which is expanded with a data expansion device and played back by an audio/video playback device.
>
> If the optical disc playback device and the data expansion device were separated into different devices which transmit data to one another, and this transmitted data were recorded by a data recording device and copied by a digital data copy device without the author's consent, then the movie's copyrighted material would be unlawfully copied to the effect of copyright infringement. The illegal copying of data through interception of the line of communication needs to be averted. Although for the most part a device's circuits and parts'

> specifications are not made known, often the electronic characteristics and signal protocols for the communication of data are, so that the illegal copying of data along the line of communication and the subsequent altering of that data becomes a serious problem.
>
> A variety of techniques are well-known for eliminating this kind of unlawful act to protect the security of communications.
>
> The most typical of these employ entity authentication mechanisms. Basically this a system where the sender of data authenticates the legitimacy of the receiver, and transmits data only when the receiver's legitimacy is confirmed. This keeps digital copyrighted material from being received by unauthorized devices,” Column 1 Lines 13 – 45.

Therefore, Matsuzaki also discloses the device and method comprising an interface which communicates with an external device (optical disc apparatus 110 is connected to playback apparatus 111 through SCSI cable 116 and therefore has an interface, Column 22 Lines 30 – 55 and Figures 9 and 10, also disclosed as first device 91 connected to second device 92 through external I/F unit 100, Column 19 Lines 59 – 65 and Figure 8); a flag control section which turns on a flag when the interface receives an identification signal from the external device, the identification signal indicating that the external device is an audio playback device (Matsuzaki does not explicitly use the word “flag” however it is well known in the art of computer science that a “flag” is nothing more than a variable or memory location that stores true-or-false, yes-or-no information and therefore is used to indicate one of two outcomes or used to control which of two things is to be done. Therefore when Matsuzaki describes that the first device "confirms the entity in communication as a legitimate device" or "judges the entity is an unauthorized device" it is obvious that Matsuzaki sets a "flag" therefore the determination can be made as to whether or not the process should proceed or be terminated, Column 2 Lines 49 – 59); a reading section which reads information from an optical disc by applying a laser beam to the optical disk (readout control unit 122 and optical head 125, the reference does not refer to a "laser beam" however since the reference pertains to the reading of an optical disc a laser beam is inherent); and a control section which performs control for enabling or disabling reading of data from the optical disk (MPU 124 controls the entire apparatus and therefore would be responsible for enabling and disabling reading of data from the optical disk):

While Matsuzaki discloses verifying if the optical disc drive is connected to an authorized playback device, Matsuzaki does not teach checking to see if a disk has been subjected to measures for countering ripping. However since Matsuzaki is concerned with preventing illegal copying of information it would have been obvious to also consider other measures.

Salmonsen also discloses an optical disk device (secure device 120, Column 2 Lines 49 – 49) and a method of controlling an optical disk device (Figure 6) to prevent illegal "ripping" when the disc is in a drive connected to a computer system capable of copying (Column 1 Lines 10 – 35) and also describes a control section configured to enable reading of the optical disk if it is determined not to be a CD subjected to measures to counter ripping, i.e., not a secure disc (step 625), and when the optical disk is determined to be a CD subjected to measures to counter ripping, i.e. a secure disc, the control section disables reading ("unless the authentication logic 325 receives authentication, no data is read from the disk 130 or passed to the application 110," Column 5 Lines 34 – 36 and steps 650 and 630).

Salmonsen does not disclose where the optical disk is determined to be a CD subjected to measures for ripping based on information read from TOC data recorded in a radially innermost portion of the optical disk. Salmonsen does disclose that the use of a disk ID is one way of identifying the particular disk. Murakami discloses more information regarding copy protection on a CD. Murakami teaches "protection management of disk information is required to use additional information which can be used for copyright protection such as prohibition of copy or prevention of illegal use of a software. In the above-mentioned optical disks, it is possible to record disk information in the TOC (table of contents) area or the like which is a recording area for control data," Column 1 Lines 48 – 57. Murakami further teaches "the additional information is data such as a serial number which is recorded when the optical disk is fabricated, and it can include management information which can be used for copyright protection such as prohibition of copy or prevention of illegal use of a software. As will be explained later, a part of the additional information may have data to be inhibited to be outputted from a recording and reproducing apparatus," Column 2 Lines 15 – 37. Murakami also shows the TOC area located in a radially innermost portion of the optical disk (Figure 1A). Therefore, given the teachings of Salmonsen of using a disk ID to identify a particular disk and the teachings of Murakami of placing the identification information in the TOC recorded in a radially innermost portion of the optical disk, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the identification information in the area as disclosed by Murakami in the system of Salmonsen, since the TOC is read before the main data in an optical disk drive and therefore a copy protected disk can be identified before the main data is accessed.

Therefore, given the two methods to protect against illegal copying of an optical disc taught, the first method taught by Matsuzaki and the second taught by Salmonsen and Murakami, it would have been obvious to one of ordinary skill in the art to combine the two methods to thereby developing a more robust method to counter illegal copying of optical discs. When combining the two methods one of ordinary skill in the art would readily recognize that there are four possible combinations and two desired outcomes. The possible combinations being: the optical drive authenticates the external device and the disc is not a secure disc, the optical drive authenticates the external device and the disc is a secure disc, the optical drive does not authenticate the external device and the disc is not a secure disc, and the optical drive does not authenticate the external device and the disc is a secure disc. The two desired outcomes being: enable reading of the disc, or disable reading of the disc.

From the teachings, the predicable set of possibilities, and given the desired outcomes, it would have been obvious to one of ordinary skill in the art that to enable reading of the disc when one of the following conditions occur:

i) when the flag is on (i.e. the optical drive authenticates the external device), and the optical disk is determined to be a CD subjected to measures for ripping, based on information read from table of contents (TOC) data recorded in a radially innermost portion of the optical disk (i.e., a secure disc) (In this case it is obvious to enable reading since even though the disc is secure, the optical drive is in an authenticated playback device and not a copy device, and therefore copying can not take place.),

ii) when the flag is on (i.e., the optical drive authenticates the external device), and the optical disk is determined to be a CD other than the CD subjected to measures for ripping, based on information read from TOC data (i.e., not a secure device) (In this case it is obvious to enable reading since the optical drive is in an authenticated playback device and not a copy device, and further the disc is not secure, therefore there is no reason to prevent reading of the disc.), and

iii) when the flag is off (i.e., the optical drive does not authenticate the external device), and the optical disk is determined to be the CD other than the CD subjected to measures for ripping (i.e., not a secure disc) (In this case it is obvious to enable reading since even though the optical drive is in a copy device and not an authenticated playback device, the disc is not secure, and therefore copying is not a concern).

Finally, from the teachings, the predicable set of possibilities, and given the desired outcomes, it would have been obvious to one of ordinary skill in the art that to disable reading of the disc during iv) when the flag is off (i.e., the optical drive does not authenticate the external device), and the optical disk is determined to be the CD subjected to measures for ripping (i.e., a secure disc) (In this case it is obvious to disable reading since the optical drive is in a copy device and not an authenticated playback device and the disc is not secure, and therefore copying is a possibility and a concern.)

Therefore, as stated previously, since Matsuzaki is concerned with preventing illegal copying of information; it would have been obvious to one of ordinary skill in the art at the time of the invention to also consider other measures and therefore design the optical device of Matsuzaki, incorporating the two methods to protect against illegal copying of an optical disc taught, the first method taught by Matsuzaki and the second taught by Salmonsen and Murakami; the combination of the two methods resulting in an optical device more robust in countering illegal copying of optical discs.

Response to Arguments

8. Applicant's arguments with respect to claims 21 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Saunders whose telephone number is (571) 270-1063. The examiner can normally be reached on Monday - Thursday, 9:00 a.m. - 4:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./
Examiner, Art Unit 2615
March 12, 2008

/Sinh N Tran/
Supervisory Patent Examiner, Art Unit 2615